



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

**STANDARD LOW BID PROJECT
Project Budgets Over \$100,000**

January 29, 2009

**KODACHROME STATE PARK PAVING
IMPROVEMENTS**

DIVISION OF PARKS & RECREATION

CANNONVILLE, UTAH

DFCM Project Number 08299510

Johansen & Tuttle Engineering
P.O. Box 487
Castle Dale, Utah 84513

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Current copies of the following documents are hereby made part of these contract documents by reference. These documents are available on the DFCM web site at <http://dfcm.utah.gov> or are available upon request from DFCM.

DFCM Supplemental General Conditions dated July 15, 2008
DFCM General Conditions dated May 25, 2005.
DFCM Application and Certification for Payment dated May 25, 2005.

Technical Specifications :
Drawings:

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at <http://dfcm.utah.gov>

NOTICE TO CONTRACTORS

Sealed bids will be received by the Division of Facilities Construction and Management (DFCM) for:

KODACHROME STATE PARK PAVING IMPROVEMENTS
DIVISION OF PARKS AND RECREATION – CANNONVILLE, UTAH
DFCM PROJECT NO: 08299510

Bids will be in accordance with the Contract Documents that will be available on **Thursday, January 29, 2009**, and distributed in electronic format only on CDs from DFCM, 4110 State Office Building, Salt Lake City, Utah and on the DFCM web page at <http://dfcm.utah.gov>. For questions regarding this project, please contact Brent Lloyd, DFCM, at (801)550-5882. No others are to be contacted regarding this bidding process. The construction estimate for this project is \$110,000.00.

A **mandatory** pre-bid meeting will be held at **1:00 PM on Wednesday, February 4, 2009** at Kodachrome State Park Visitor Center located at approximately 9 miles south off State Route 12 in Cannonville, Utah. All bidders wishing to bid on this project are required to attend this meeting.

Bids will be received until the hour of **2:30 PM on Tuesday, February 17, 2009** at DFCM, 4110 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. NOTE: Bids must be received at 4110 State Office Building by the specified time.

A bid bond in the amount of five percent (5%) of the bid amount, made payable to the Division of Facilities Construction and Management on DFCM's bid bond form, shall accompany the bid.

The Division of Facilities Construction and Management reserves the right to reject any or all bids or to waive any formality or technicality in any bid in the interest of DFCM.

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
Joanna Reese, Contract Coordinator
4110 State Office Building, Salt Lake City, Utah 84114

PROJECT DESCRIPTION

The project requires installation of an ISSA Type II Slurry Seal, only contractors qualified to install this application will be considered. The Contractor shall submit a base bid proposal for pot-hole repairs, installation of ISSA Type II Slurry Seal (approx. 25,475 SY) and new paint striping on the roadways of Kodachrome State Park as detailed in the plans and specifications provided.

As an Additive Alternate, the Contractor shall submit a bid proposal for installation of ISSA Type II Slurry Seal (approx. 2,910 SY) on the access road to the Eagle View Trailhead in Kodachrome State Park as detailed in the plans and specifications provided.

The challenge in this project will be careful coordination and communication skills necessary to work with park personnel and patrons. The park will be open to the public during this project. The Contractor shall provide barricades insuring safety, delineating traffic routes and protecting the work area for the duration of the project.

**PROJECT SCHEDULE**

PROJECT NAME: Kodachrome State Park Paving Improvements Division of Parks & Recreation – Cannonville, Utah DFCM PROJECT NO. 08299510				
Event	Day	Date	Time	Place
Bidding Documents Available	Thursday	January 29, 2009	10:00 AM	DFCM 4110 State Office Bldg SLC, UT and the DFCM web site *
Mandatory Pre-bid Site Meeting	Wednesday	February 4, 2009	1:00 PM	Visitor Center, Kodachrome State Park, 5 miles south of Cannonville, Utah
Last Day to Submit Questions	Tuesday	February 10, 2009	10:00 AM	Brent Lloyd – DFCM E-mail – brentlloyd@utah.gov Fax 801-538-3267
Addendum Deadline (exception for bid delays)	Thursday	February 12, 2009	2:00 PM	DFCM web site *
Prime Contractors Turn In Bid and Bid Bond	Tuesday	February 17, 2009	2:30 PM	DFCM 4110 State Office Bldg SLC, UT
Sub-contractor List Due	Wednesday	February 18, 2009	2:30 PM	DFCM 4110 State Office Bldg SLC, UT Fax 801-538-3677
Substantial Completion Date	Friday	May 15, 2009		

* NOTE: DFCM's web site address is <http://dfcm.utah.gov>



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

BID FORM

NAME OF BIDDER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the **Kodachrome State Park Paving Improvements – Division of Parks & Recreation – Cannonville, Utah, DFCM Project #08299510** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

Base Bid: For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____) (In case of discrepancy, written amount shall govern)

Additive Alternate #1 - Eagle View Trailhead Access: For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____) (In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by May 15, 2009, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of **\$250.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days,

unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Bidder

ADDRESS:

Authorized Signature

**STATE OF UTAH DFCM
KODACHROME STATE PARK
MAIN ROAD ASPHALT AND SLURRY REPAIRS
PROJECT NO. 08299510**

ITEM SCHEDULE

BASE BID

ITEM	WORK OR MATERIAL	UNIT	QTY	UNIT PRICE	AMOUNT
1	MOBILIZATION	L.S.	1	\$ _____	\$ _____
2	SLURRY SEAL TYPE II	SQ.YD.	25,475	\$ _____	\$ _____
3	PAVEMENT MARKING	L.S.	1	\$ _____	\$ _____
4	POT HOLE REPAIR	SQ.FT.	6,820	\$ _____	\$ _____

TOTAL
BASE BID = \$ _____

ALTERNATIVE ADDITIVE #1 – EAGLE VIEW TRAILHEAD ACCESS

ITEM	WORK OR MATERIAL	UNIT	QTY	UNIT PRICE	AMOUNT
1	SLURRY SEAL TYPE II	SQ.YD.	2,910	\$ _____	\$ _____

TOTAL
ALT. #1 = \$ _____

INSTRUCTIONS TO BIDDERS

1. Drawings and Specifications, Other Contract Documents

Drawings and Specifications, as well as other available Contract Documents, may be obtained as stated in the Invitation to Bid.

2. Bids

Before submitting a bid, each contractor shall carefully examine the Contract Documents, shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the bid the cost of all items required by the Contract Documents. If the bidder observes that portions of the Contract Documents are at variance with applicable laws, building codes, rules, regulations or contain obvious erroneous or uncoordinated information, the bidder shall promptly notify the DFCM Representative and the necessary changes shall be accomplished by Addendum.

The bid, bearing original signatures, must be typed or handwritten in ink on the Bid Form provided in the procurement documents and submitted in a sealed envelope at the location specified by the Invitation to Bid prior to the deadline for submission of bids.

Bid bond security, in the amount of five percent (5%) of the bid, made payable to the Division of Facilities Construction and Management, shall accompany bid. **THE BID BOND MUST BE ON THE BID BOND FORM PROVIDED IN THE PROCUREMENT DOCUMENTS IN ORDER TO BE CONSIDERED AN ACCEPTABLE BID.**

If the bid bond security is submitted on a bid bond form other than DFCM's required bid bond form, and the bid security meets all other legal requirements, the bidder will be allowed to provide an acceptable bid bond by the close of business on the next business day following notification by DFCM of submission of a defective bid bond security. **NOTE: A cashier's check cannot be used as a substitute for a bid bond.**

3. Contract and Bond

The Contractor's Agreement will be in the form found in the specifications. The Contract Time will be as indicated in the bid. The successful bidder, simultaneously with the execution of the Contract Agreement, will be required to furnish a performance bond and a payment bond, both bearing original signatures, upon the forms provided in the procurement documents. The performance and payment bonds shall be for an amount equal to one hundred percent (100%) of the contract sum and secured from a company that meets the requirements specified in the requisite forms. Any bonding requirements for subcontractors will be specified in the Supplementary General Conditions.

4. Listing of Subcontractors

Listing of Subcontractors shall be as summarized in the “Instructions and Subcontractor’s List Form”, which are included as part of these Contract Documents. The Subcontractors List shall be delivered to DFCM or faxed to DFCM at (801)538-3677 within 24 hours of the bid opening. Requirements for listing additional subcontractors will be listed in the Contract Documents.

DFCM retains the right to audit or take other steps necessary to confirm compliance with requirements for the listing and changing of subcontractors. Any contractor who is found to not be in compliance with these requirements is subject to a debarment hearing and may be debarred from consideration for award of contracts for a period of up to three years.

5. Interpretation of Drawings and Specifications

If any person or entity contemplating submitting a bid is in doubt as to the meaning of any part of the drawings, specifications or other Contract Documents, such person shall submit to the DFCM Project Manager a request for an interpretation thereof. The person or entity submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addenda posted on DFCM’s web site at <http://dfcm.utah.gov>. Neither the DFCM nor A/E will be responsible for any other explanations or interpretations of the proposed documents. A/E shall be deemed to refer to the architect or engineer hired by DFCM as the A/E or Consultant for the Project.

6. Addenda

Addenda will be posted on DFCM’s web site at <http://dfcm.utah.gov>. Contractors are responsible for obtaining information contained in each addendum from the web site. Addenda issued prior to the submittal deadline shall become part of the bidding process and must be acknowledged on the bid form. Failure to acknowledge addenda may result in disqualification from bidding.

7. Award of Contract

The Contract will be awarded as soon as possible to the lowest, responsive and responsible bidder, based on the lowest combination of base bid and acceptable prioritized alternates, provided the bid is reasonable, is in the interests of the State of Utah to accept and after applying the Utah Preference Laws in U.C.A. Title 63, Chapter 56. DFCM reserves the right to waive any technicalities or formalities in any bid or in the bidding. Alternates will be accepted on a prioritized basis with Alternate 1 being highest priority, Alternate 2 having second priority, etc.

8. DFCM Contractor Performance Rating

As a contractor completes each DFCM project, DFCM, the architect/engineer and the using agency will evaluate project performance based on the enclosed “DFCM Contractor Performance Rating” form. The ratings issued on this project will not affect this project but may affect the award on future projects.

9. Licensure

The Contractor shall comply with and require all of its subcontractors to comply with the license laws as required by the State of Utah.

10. Permits

In concurrence with the requirements for permitting in the General Conditions, it is the responsibility of the Contractor to obtain the fugitive dust plan requirements from the Utah Division of Air Quality and the SWPPP requirements from the Utah Department of Environmental Quality and submit the completed forms and pay any permit fee that may be required for this specific project. Failure to obtain the required permit may result in work stoppage and/or fines from the regulating authority that will be the sole responsibility of the Contractor. Any delay to the project as a result of any such failure to obtain the permit or noncompliance with the permit shall not be eligible for any extension in the Contract Time.

11. Right to Reject Bids

DFCM reserves the right to reject any or all Bids.

12. Time is of the Essence

Time is of the essence in regard to all the requirements of the Contract Documents.

13. Withdrawal of Bids

Bids may be withdrawn on written request received from bidder prior to the time fixed for opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

14. Product Approvals

Where reference is made to one or more proprietary products in the Contract Documents, but restrictive descriptive materials of one or more manufacturer(s) is referred to in the Contract Documents, the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the drawings and specifications and are compatible with the intent and purpose of

the design, subject to the written approval of the A/E. Such written approval must occur prior to the deadline established for the last scheduled addenda to be issued. The A/E's written approval will be in an issued addendum. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design as determined by the A/E.

15. Financial Responsibility of Contractors, Subcontractors and Sub-subcontractors

Contractors shall respond promptly to any inquiry in writing by DFCM to any concern of financial responsibility of the contractor, subcontractor or sub-subcontractor.

16. Debarment

By submitting a bid, the Contractor certifies that neither it nor its principals, including project and site managers, have been, or are under consideration for, debarment or suspension, or any action that would exclude such from participation in a construction contract by any governmental department or agency. If the Contractor cannot certify this statement, attach to the bid a detailed written explanation which must be reviewed and approved by DFCM as part of the requirements for award of the Project.

BID BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed, (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the STATE OF UTAH, hereinafter referred to as the "Obligee," in the amount of \$ _____ (5% of the accompanying bid), being the sum of this Bond to which payment the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted to Obligee the accompanying bid incorporated by reference herein, dated as shown, to enter into a contract in writing for the _____ Project.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the said principal does not execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the principal, then the sum of the amount stated above will be forfeited to the State of Utah as liquidated damages and not as a penalty; if the said principal shall execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the Principal, then this obligation shall be null and void. It is expressly understood and agreed that the liability of the Surety for any and all defaults of the Principal hereunder shall be the full penal sum of this Bond. The Surety, for value received, hereby stipulates and agrees that obligations of the Surety under this Bond shall be for a term of sixty (60) days from actual date of the bid opening.

PROVIDED, HOWEVER, that this Bond is executed pursuant to provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals on the date indicated below, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

DATED this _____ day of _____, 20_____.

Principal's name and address (if other than a corporation):

By: _____

Title: _____

Principal's name and address (if a corporation):

By: _____

Title: _____
(Affix Corporate Seal)

Surety's name and address:

STATE OF _____)
COUNTY OF _____) ss.

By: _____
Attorney-in-Fact (Affix Corporate Seal)

On this ____ day of _____, 20_____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My Commission Expires: _____

Resides at: _____

Agency: _____
Agent: _____
Address: _____
Phone: _____

NOTARY PUBLIC

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

**Division of Facilities Construction and****INSTRUCTIONS AND SUBCONTRACTORS LIST FORM**

The three low bidders, as well as all other bidders that desire to be considered, are required by law to submit to DFCM within 24 hours of bid opening a list of **ALL** first-tier subcontractors, including the subcontractor's name, bid amount and other information required by Building Board Rule and as stated in these Contract Documents, based on the following:

DOLLAR AMOUNTS FOR LISTING

PROJECTS UNDER \$500,000: ALL FIRST-TIER SUBS \$20,000 OR OVER MUST BE LISTED
PROJECTS \$500,000 OR MORE: ALL FIRST-TIER SUBS \$35,000 OR OVER MUST BE LISTED

- Any additional subcontractors identified in the bid documents shall also be listed.
- The DFCM Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law.
- List subcontractors for base bid as well as the impact on the list that the selection of any alternate may have.
- Bidder may not list more than one subcontractor to perform the same work.
- If there are no subcontractors for the job that are required to be reported by State law (either because there are no subcontractors that will be used on the project or because there are no first-tier subcontractors over the dollar amounts referred to above), then you do not need to submit a sublist. If you do not submit a sublist, it will be deemed to be a representation by you that there are no subcontractors on the job that are required to be reported under State law. At any time, DFCM reserves the right to inquire, for security purposes, as to the identification of the subcontractors at any tier that will be on the worksite.

LICENSURE:

The subcontractor's name, the type of work, the subcontractor's bid amount, and the subcontractor's license number as issued by DOPL, if such license is required under Utah Law, shall be listed. Bidder shall certify that all subcontractors, required to be licensed, are licensed as required by State law. A subcontractor includes a trade contractor or specialty contractor and does not include suppliers who provide only materials, equipment, or supplies to a contractor or subcontractor.

'SPECIAL EXCEPTION':

A bidder may list 'Special Exception' in place of a subcontractor when the bidder intends to obtain a subcontractor to perform the work at a later date because the bidder was unable to obtain a qualified or reasonable bid under the provisions of U.C.A. Section 63A-5-208(4). The bidder shall insert the term 'Special Exception' for that category of work, and shall provide documentation with the subcontractor list describing the bidder's efforts to obtain a bid of a qualified subcontractor at a reasonable cost and why the bidder was unable to obtain a qualified subcontractor bid. The Director must find that the bidder complied in good faith with State law requirements for any 'Special Exception' designation, in order for the bid to be considered. If awarded the contract, the Director shall supervise the bidder's efforts to obtain a qualified subcontractor bid. The amount of the awarded contract may not be adjusted to reflect the actual amount of the subcontractor's bid. Any listing of 'Special Exception' on the sublist form shall also include amount allocated for that work.

GROUND FOR DISQUALIFICATION:

The Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law. Director may withhold awarding the contract to a particular bidder if one or more of the proposed subcontractors are considered by the Director to be unqualified to do the Work or for

INSTRUCTIONS AND SUBCONTRACTORS LIST FORM
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such other reason in the best interest of the State of Utah. Notwithstanding any other provision in these instructions, if there is a good faith error on the sublist form, at the sole discretion of the Director, the Director may provide notice to the contractor and the contractor shall have 24 hours to submit the correction to the Director. If such correction is submitted timely, then the sublist requirements shall be considered met.

CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:

Subsequent to twenty-four hours after the bid opening, the contractor may change its listed subcontractors only after receiving written permission from the Director based on complying with all of the following criteria.

- (1) The contractor has established in writing that the change is in the best interest of the State and that the contractor establishes an appropriate reason for the change, which may include, but not is not limited to, the following reasons: the original subcontractor has failed to perform, or is not qualified or capable of performing, and/or the subcontractor has requested in writing to be released.
- (2) The circumstances related to the request for the change do not indicate any bad faith in the original listing of the subcontractors.
- (3) Any requirement set forth by the Director to ensure that the process used to select a new subcontractor does not give rise to bid shopping.
- (4) Any increase in the cost of the subject subcontractor work is borne by the contractor.
- (5) Any decrease in the cost of the subject subcontractor work shall result in a deductive change order being issued for the contract for such decreased amount.
- (6) The Director will give substantial weight to whether the subcontractor has consented in writing to being removed unless the Contractor establishes that the subcontractor is not qualified for the work.

EXAMPLE:

Example of a list where there are only four subcontractors:

TYPE OF WORK	SUBCONTRACTOR, “SELF” OR “SPECIAL EXCEPTION”	SUBCONTRACTOR BID AMOUNT	CONTRACTOR LICENSE #
ELECTRICAL	ABCD Electric Inc.	\$350,000.00	123456789000
LANDSCAPING	“Self” *	\$300,000.00	123456789000
CONCRETE (ALTERNATE #1)	XYZ Concrete Inc	\$298,000.00	987654321000
MECHANICAL	“Special Exception” (attach documentation)	Fixed at: \$350,000.00	(TO BE PROVIDED AFTER OBTAINING SUBCONTRACTOR)

* Bidders may list “self”, but it is not required.

**PURSUANT TO STATE LAW - SUBCONTRACTOR BID AMOUNTS CONTAINED IN THIS
SUBCONTRACTOR LIST SHALL NOT BE DISCLOSED UNTIL THE CONTRACT HAS BEEN AWARDED.**

**SUBCONTRACTORS LIST**

FAX TO 801-538-3677

PROJECT TITLE: _____

Caution: You must read and comply fully with instructions.

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #

We certify that:

1. This list includes all subcontractors as required by the instructions, including those related to the base bid as well as any alternates.
2. We have listed "Self" or "Special Exception" in accordance with the instructions.
3. All subcontractors are appropriately licensed as required by State law.

FIRM: _____

DATE: _____

SIGNED BY: _____

NOTICE: FAILURE TO SUBMIT THIS FORM, PROPERLY COMPLETED AND SIGNED, AS REQUIRED IN THESE CONTRACT DOCUMENTS, SHALL BE GROUNDS FOR OWNER'S REFUSAL TO ENTER INTO A WRITTEN CONTRACT WITH BIDDER. ACTION MAY BE TAKEN AGAINST BIDDERS BID BOND AS DEEMED APPROPRIATE BY OWNER. ATTACH A SECOND PAGE IF NECESSARY.

CONTRACTOR'S AGREEMENT

FOR:

THIS CONTRACTOR'S AGREEMENT, made and entered into this ____ day of _____, 20__, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter referred to as "DFCM", and _____, incorporated in the State of _____ and authorized to do business in the State of Utah, hereinafter referred to as "Contractor", whose address is _____.

WITNESSETH: WHEREAS, DFCM intends to have Work performed at _____.

WHEREAS, Contractor agrees to perform the Work for the sum stated herein.

NOW, THEREFORE, DFCM and Contractor for the consideration provided in this Contractor's Agreement, agree as follows:

ARTICLE 1. SCOPE OF WORK. The Work to be performed shall be in accordance with the Contract Documents prepared by _____ and entitled "_____"

The DFCM General Conditions ("General Conditions") dated May 25, 2005 and Supplemental General Conditions dated July 15, 2008 ("also referred to as General Conditions") on file at the office of DFCM and available on the DFCM website, are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.

The Contractor Agrees to furnish labor, materials and equipment to complete the Work as required in the Contract Documents which are hereby incorporated by reference. It is understood and agreed by the parties hereto that all Work shall be performed as required in the Contract Documents and shall be subject to inspection and approval of DFCM or its authorized representative. The relationship of the Contractor to the DFCM hereunder is that of an independent Contractor.

ARTICLE 2. CONTRACT SUM. The DFCM agrees to pay and the Contractor agrees to accept in full performance of this Contractor's Agreement, the sum of _____ DOLLARS AND NO CENTS (\$_____.00), which is the base bid, and which sum also includes the cost of a 100% Performance Bond and a 100%

CONTRACTOR'S AGREEMENT
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Payment Bond as well as all insurance requirements of the Contractor. Said bonds have already been posted by the Contractor pursuant to State law. The required proof of insurance certificates have been delivered to DFCM in accordance with the General Conditions before the execution of this Contractor's Agreement.

ARTICLE 3. TIME OF COMPLETION AND DELAY REMEDY. The Work shall be Substantially Complete by _____. Contractor agrees to pay liquidated damages in the amount of \$_____ per day for each day after expiration of the Contract Time until the Contractor achieves Substantial Completion in accordance with the Contract Documents, if Contractor's delay makes the damages applicable. The provision for liquidated damages is: (a) to compensate the DFCM for delay only; (b) is provided for herein because actual damages can not be readily ascertained at the time of execution of this Contractor's Agreement; (c) is not a penalty; and (d) shall not prevent the DFCM from maintaining Claims for other non-delay damages, such as costs to complete or remedy defective Work.

No action shall be maintained by the Contractor, including its or Subcontractor or suppliers at any tier, against the DFCM or State of Utah for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the DFCM or its officers, employees or agents, except as expressly provided in the General Conditions. The Contractor may receive a written extension of time, signed by the DFCM, in which to complete the Work under this Contractor's Agreement in accordance with the General Conditions.

ARTICLE 4. CONTRACT DOCUMENTS. The Contract Documents consist of this Contractor's Agreement, the Conditions of the Contract (DFCM General Conditions, Supplementary and other Conditions), the Drawings, Specifications, Addenda and Modifications. The Contract Documents shall also include the bidding documents, including the Invitation to Bid, Instructions to Bidders/ Proposers and the Bid/Proposal, to the extent not in conflict therewith and other documents and oral presentations that are documented as an attachment to the contract.

All such documents are hereby incorporated by reference herein. Any reference in this Contractor's Agreement to certain provisions of the Contract Documents shall in no way be construed as to lessen the importance or applicability of any other provisions of the Contract Documents.

ARTICLE 5. PAYMENT. The DFCM agrees to pay the Contractor from time to time as the Work progresses, but not more than once each month after the date of Notice to Proceed, and only upon Certificate of the A/E for Work performed during the preceding calendar month, ninety-five percent (95%) of the value of the labor performed and ninety-five percent (95%) of the value of materials furnished in place or on the site. The Contractor agrees to furnish to the DFCM invoices for materials purchased and on the site but not installed, for which the Contractor requests payment and agrees to

safeguard and protect such equipment or materials and is responsible for safekeeping thereof and if such be stolen, lost or destroyed, to replace same.

Such evidence of labor performed and materials furnished as the DFCM may reasonably require shall be supplied by the Contractor at the time of request for Certificate of Payment on account. Materials for which payment has been made cannot be removed from the job site without DFCM's written approval. Five percent (5%) of the earned amount shall be retained from each monthly payment. The retainage, including any additional retainage imposed and the release of any retainage, shall be in accordance with UCA 13-8-5 as amended. Contractor shall also comply with the requirements of UCA 13-8-5, including restrictions of retainage regarding subcontractors and the distribution of interest earned on the retention proceeds. The DFCM shall not be responsible for enforcing the Contractor's obligations under State law in fulfilling the retention law requirements with subcontractors at any tier.

ARTICLE 6. INDEBTEDNESS. Before final payment is made, the Contractor must submit evidence satisfactory to the DFCM that all payrolls, materials bills, subcontracts at any tier and outstanding indebtedness in connection with the Work have been properly paid. Final Payment will be made after receipt of said evidence, final acceptance of the Work by the DFCM as well as compliance with the applicable provisions of the General Conditions.

Contractor shall respond immediately to any inquiry in writing by DFCM as to any concern of financial responsibility and DFCM reserves the right to request any waivers, releases or bonds from Contractor in regard to any rights of Subcontractors (including suppliers) at any tier or any third parties prior to any payment by DFCM to Contractor.

ARTICLE 7. ADDITIONAL WORK. It is understood and agreed by the parties hereto that no money will be paid to the Contractor for additional labor or materials furnished unless a new contract in writing or a Modification hereof in accordance with the General Conditions and the Contract Documents for such additional labor or materials has been executed. The DFCM specifically reserves the right to modify or amend this Contractor's Agreement and the total sum due hereunder either by enlarging or restricting the scope of the Work.

ARTICLE 8. INSPECTIONS. The Work shall be inspected for acceptance in accordance with the General Conditions.

ARTICLE 9. DISPUTES. Any dispute, PRE or Claim between the parties shall be subject to the provisions of Article 7 of the General Conditions. DFCM reserves all rights to pursue its rights and remedies as provided in the General Conditions.

ARTICLE 10. TERMINATION, SUSPENSION OR ABANDONMENT. This Contractor's Agreement may be terminated, suspended or abandoned in accordance with the General Conditions.

ARTICLE 11. DFCM'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE USE THEREOF. The DFCM may withhold from payment to the Contractor such amount as, in DFCM's judgment, may be necessary to pay just claims against the Contractor or Subcontractor at any tier for labor and services rendered and materials furnished in and about the Work. The DFCM may apply such withheld amounts for the payment of such claims in DFCM's discretion. In so doing, the DFCM shall be deemed the agent of Contractor and payment so made by the DFCM shall be considered as payment made under this Contractor's Agreement by the DFCM to the Contractor. DFCM shall not be liable to the Contractor for any such payment made in good faith. Such withholdings and payments may be made without prior approval of the Contractor and may be also be prior to any determination as a result of any dispute, PRE, Claim or litigation.

ARTICLE 12. INDEMNIFICATION. The Contractor shall comply with the indemnification provisions of the General Conditions.

ARTICLE 13. SUCCESSORS AND ASSIGNMENT OF CONTRACT. The DFCM and Contractor, respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement, and to partners, successors, assigns and legal representatives of such other party with respect to all covenants, provisions, rights and responsibilities of this Contractor's Agreement. The Contractor shall not assign this Contractor's Agreement without the prior written consent of the DFCM, nor shall the Contractor assign any moneys due or to become due as well as any rights under this Contractor's Agreement, without prior written consent of the DFCM.

ARTICLE 14. RELATIONSHIP OF THE PARTIES. The Contractor accepts the relationship of trust and confidence established by this Contractor's Agreement and covenants with the DFCM to cooperate with the DFCM and A/E and use the Contractor's best skill, efforts and judgment in furthering the interest of the DFCM; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economic manner consistent with the interests of the DFCM.

ARTICLE 15. AUTHORITY TO EXECUTE AND PERFORM AGREEMENT. Contractor and DFCM each represent that the execution of this Contractor's Agreement and the performance thereunder is within their respective duly authorized powers.

ARTICLE 16. ATTORNEY FEES AND COSTS. Except as otherwise provided in the dispute resolution provisions of the General Conditions, the prevailing party shall be entitled to reasonable attorney fees and costs incurred in any action in the District Court and/or appellate body to enforce this Contractor's Agreement or recover damages or any other action as a result of a breach thereof.

CONTRACTOR'S AGREEMENT
PAGE NO. 5

IN WITNESS WHEREOF, the parties hereto have executed this Contractor's Agreement on the day and year stated hereinabove.

CONTRACTOR: _____

Signature Date

Title: _____

Please type/print name clearly

State of _____)

County of _____)

On this ____ day of _____, 20____, personally appeared before me, _____, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) and who by me duly sworn (or affirmed), did say that he (she) is the _____ (title or office) of the firm and that said document was signed by him (her) in behalf of said firm.

Notary Public

My Commission Expires _____

(SEAL)

APPROVED AS TO AVAILABILITY
OF FUNDS:

David D. Williams, Jr. Date
DFCM Administrative Services Director

**DIVISION OF FACILITIES
CONSTRUCTION AND MANAGEMENT**

Lynn A. Hinrichs Date
Assistant Director Construction Management

APPROVED AS TO FORM:
ATTORNEY GENERAL
July 15, 2008
By: Alan S. Bachman
Asst Attorney General

APPROVED FOR EXPENDITURE:

Division of Finance Date

PERFORMANCE BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That _____ hereinafter referred to as the "Principal" and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah, hereinafter referred to as the "Obligee," in the amount of _____ DOLLARS (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____, for the approximate sum of _____ Dollars (\$ _____), which Contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Contract Documents including, but not limited to, the Plans, Specifications and conditions thereof, the one year performance warranty, and the terms of the Contract as said Contract may be subject to Modifications or changes, then this obligation shall be void; otherwise it shall remain in full force and effect.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the state named herein or the heirs, executors, administrators or successors of the Owner.

The parties agree that the dispute provisions provided in the Contract Documents apply and shall constitute the sole dispute procedures of the parties.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the Provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____ (Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____ Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney in-fact of the above-named Surety Company and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20____.

My commission expires: _____

Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

PAYMENT BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____ authorized to do business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); with its principal office in the City of _____, hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah hereinafter referred to as the "Obligee," in the amount of _____ Dollars (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____ for the approximate sum of _____ Dollars (\$ _____), which contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall pay all claimants supplying labor or materials to Principal or Principal's Subcontractors in compliance with the provisions of Title 63, Chapter 56, of Utah Code Annotated, 1953, as amended, and in the prosecution of the Work provided for in said Contract, then, this obligation shall be void; otherwise it shall remain in full force and effect.

That said Surety to this Bond, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder, or the specifications or drawings accompanying same shall in any way affect its obligation on this Bond, and does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to the Work or to the specifications or drawings and agrees that they shall become part of the Contract Documents.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____

(Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____

Attorney-in-Fact (Seal)

STATE OF _____)
) ss.

COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20____.

My commission expires: _____

Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

**CERTIFICATE OF SUBSTANTIAL COMPLETION**

PROJECT _____ PROJECT NO: _____

AGENCY/INSTITUTION _____

AREA ACCEPTED _____

The Work performed under the subject Contract has been reviewed on this date and found to be Substantially Completed as defined in the General Conditions; including that the construction is sufficiently completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the State of Utah can occupy the Project or specified area of the Project for the use for which it is intended.

The DFCM - (Owner) accepts the Project or specified area of the Project as Substantially Complete and will assume full possession of the Project or specified area of the Project at _____ (time) on _____ (date).

The DFCM accepts the Project for occupancy and agrees to assume full responsibility for maintenance and operation, including utilities and insurance, of the Project subject to the itemized responsibilities and/or exceptions noted below:

The Owner acknowledges receipt of the following closeout and transition materials:

As-built Drawings

O & M Manuals

Warranty Documents

Completion of Training
Requirements

A list of items to be completed or corrected (Punch List) is attached hereto. The failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents, including authorized changes thereof. The amount of _____ (Twice the value of the punch list work) shall be retained to assure the completion of the punch list work.

The Contractor shall complete or correct the Work on the list of (Punch List) items appended hereto within _____ calendar days from the above date of issuance of this Certificate. The amount withheld pending completion of the list of items noted and agreed to shall be: \$ _____. If the list of items is not completed within the time allotted the Owner has the right to be compensated for the delays and/or complete the work with the help of independent contractor at the expense of the retained project funds. If the retained project funds are insufficient to cover the delay/completion damages, the Owner shall be promptly reimbursed for the balance of the funds needed to compensate the Owner.

CONTRACTOR (include name of firm) by: _____
(Signature) DATE

A/E (include name of firm) by: _____
(Signature) DATE

USING INSTITUTION OR AGENCY by: _____
(Signature) DATE

DFCM (Owner) by: _____
(Signature) DATE

**General Contractor Performance Rating Form**

Project Name:		DFCM Project#	
Contractor: (ABC Construction, John Doe, 111-111-1111)	A/E: (ABC Architects, Jane Doe, 222-222-2222)	Original Contract Amount:	Final Contract Amount:
DFCM Project Manager:		Contract Date:	
Completion Date:		Date of Rating:	

Rating Guideline	QUALITY OF PRODUCT OR SERVICES	COST CONTROL	TIMELINESS OF PERFORMANCE	BUSINESS RELATIONS
5-Exceptional	Contractor has demonstrated an exceptional performance level in any of the above four categories that justifies adding a point to the score. Contractor performance clearly exceeds the performance levels described as "Very Good"			
4-Very Good	Contractor is in compliance with contract requirements and/or delivers quality product/service.	Contractor is effective in managing costs and submits current, accurate, and complete billings	Contractor is effective in meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is effective
3-Satisfactory	Minor inefficiencies/errors have been identified	Contractor is usually effective in managing cost	Contractor is usually effective in meeting milestones and delivery schedules	Response to inquires technical/service/administrative issues is somewhat effective
2-Marginal	Major problems have been encountered	Contractor is having major difficulty managing cost effectively	Contractor is having major difficulty meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is marginally effective
1-Unsatisfactory	Contractor is not in compliance and is jeopardizing achievement of contract objectives	Contractor is unable to manage costs effectively	Contractor delays are jeopardizing performance of contract objectives	Response to inquiries, technical/service/administrative issues is not effective

1. Rate Contractors quality of workmanship, management of sub contractor performance, project cleanliness, organization and safety requirement.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

2. Rate Contractor administration of project costs, change orders and financial management of the project budget.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

3. Rate Contractor's performance and adherence to Project Schedule, delay procedures and requirements of substantial completion, inspection and punch-list performance.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

4. Evaluate performance of contractor management team including project manager, engineer and superintendent also include in the rating team's ability to work well with owner, user agency and consultants.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

5. Rate success of Contractor's management plan, completion of the plans mitigation of project risks and performance of value engineering concepts.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

Signed by:	Date:	Mean Score
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Additional Comments:

CONSTRUCTION SPECIFICATION

SPECIAL CONDITIONS

1. SCOPE

This section of the specifications cover specific requirements, instructions, and conditions applicable to this project only, which are not covered by the General Conditions or detailed specifications. Should there be conflicting statements between this section and other sections of these specifications, this section shall govern.

2. STANDARD PRODUCTS

The material brand names and catalog numbers shown on the drawings or called out in the specifications are meant to set a standard that all other materials should meet. The Contractor or supplier will submit information and data to show his material is equal. The decision of the Engineer shall be final in this section.

3. MAINTENANCE OF TRAFFIC

The Contractor shall at all times conduct his operations so that there is a minimum of interruptions of the use of park roads involved.

4. CONTRACTOR TO MAINTAIN AND REPLACE STAKES

The Contractor shall furnish without charge, competent men from his force, stakes, tools, and other materials, for the proper staking out of the work, in making measurements and surveys, and in establishing temporary or permanent reference marks in connection with the work. This does not mean to imply, the Contractor is to pay for initial staking, as this will be the cost of the Owner.

Initial staking to be provided by the Owner will be the establishment of:

- a. Bench Marks.
- b. Original lines and grades necessary for horizontal and vertical control of the construction of the permanent works.
- c. Right-of-way limits.

The Contractor shall provide surveys necessary to maintain the lines and grades during

the construction of the permanent works.

5. **LINES AND GRADES**

All work done under this contract shall be done to the line, grades, and elevations shown on the plans, or as directed by the Engineer. The Contractor shall keep the Engineer informed, a reasonable time in advance, of the times and places at which he intends to do work, in order that lines and grades may be furnished and necessary measurements for record and payment may be made with the minimum of inconvenience to the Engineer and delay to the Contractor.

6. **PAYMENT OF SUPPLIES AND SUBCONTRACTORS**

It is intended that the Contractor and subcontractor make full monthly payments to their suppliers and subcontractors as invoices are rendered. Such invoices shall be deemed as paid at the time each monthly certificate of payment is prepared by the Engineer. Affidavits will be submitted by the Contractor as means of certifying to the Engineer that all equipment and materials delivered have been paid for. This will be the normal proof of payment; however, the Engineer will have the right at any time to demand copies of certified paid invoices. Failure or inability to provide such paid invoices will be sufficient cause for hold-up of further monthly pay estimates.

7. **CERTIFICATIONS**

Certifications that all materials used in the construction of the permanent works meet these specifications will be required. These certifications shall include the contract number, project name, bid item number, material furnished, applicable specification number and quantity furnished.

8. **TEST**

Test results that are required from the Contractor at the Contractor's expense will be performed as specified in the specifications. Duplicate copies of the test results shall be furnished to the Engineer for his approval at least 10 days prior to the use of the materials in the permanent works. All "on site" testing shall be made in the presence of and be approved by the Engineer or his representative. Written test results for "on site" tests will not be required.

9. **EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL CONDITIONS, AND SITES**

The bidder is required to carefully examine the site of the proposed work, the proposal, plans, specifications, supplemental specification, special provision, and contract forms before submitting a proposal.

The submission of a bid shall be considered PRIMA FACIE evidence that the Bidder has made the required examinations and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract.

10. **IMPROVEMENT RESTORATION**

All improvements damaged as a result of Contractor's work shall be replaced by the Contractor. Improvement restoration shall be completed immediately upon completion of work in that area.

11. **OVERTIME WORK**

The Contractor shall not work Saturdays, Sundays or holidays.

12. **WASTE MATERIAL**

The Contractor shall be responsible for disposal of waste and debris from the site.

13. **SUPERVISION BY CONTRACTOR**

The Contractor will supervise and direct work. He will be solely responsible for the means, techniques, sequences and procedures of construction. The Contractor will employ and maintain on the work site a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the contractors representative at the site. The supervisor or superintendent shall have full authority to act on behalf of the contractor and all communications given to the supervisor shall be as binding as if given to the contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

14. **CONTRACTOR'S PERSONNEL**

All work under this contract shall be performed in a skillful and workmanlike manner. The Owner may, in writing, require the Contractor to remove from work any employee the Owner deems incompetent, careless, or otherwise objectionable.

15. **GUARANTEE OF THE WORK**

The Contractor shall, for a period of two (2) years after completion and acceptance of the work, maintain and repair any defective work which may occur to the permanent work. If the Contractor fails to correct defective work, Owner will notify the bonding company of Contractor's failure to respond.

16. **LIABILITY INSURANCE**

Before the contract is executed the Contractor with the successful bid shall be required to furnish to Owner, a copy of the public liability and property damage insurance policy in an amount of no less than **\$1,000,000 each occurrence**, which is to be in force and applicable to the project. In addition, the Contractor shall be required to furnish, a letter from the company holding said policy, stating that the Owner will be informed of any change in the status of the policy. Also, Workmen's Compensation Insurance shall be provided by the Contractor.

17. **WEEKEND WORK / INCLEMENT WEATHER**

Weekends (Saturday or Sunday) and Holidays that have inclement weather will not be used for time extension unless the Contractor has received prior written permission from the Engineer to work. Days on which the Contractor is prevented, by inclement weather, or conditions determined by the Engineer, to be adverse too proceed, the time for completion will be extended by the amount of days delayed.

18. **COMPENSATION**

Compensation for compliance to these Special Conditions will be made in the appropriate bid items.

CONSTRUCTION SPECIFICATION

8. MOBILIZATION

1. SCOPE

The work shall consist of mobilization of the Contractor's forces and equipment necessary for performing the work required under the contract.

It shall include the purchase of contract bonds, insurances, transportation of the personnel, equipment, and operating supplies to the site; establishing of office, buildings, construction signing in accordance with the manual on "Uniform Traffic Control Device", and other necessary facilities at the site; and other preparatory work at the site.

It shall not include mobilization for any specific time of work for which payment for mobilization is provided elsewhere in the contract.

This specification covers mobilization of work required by the contract at the time of award. If additional mobilization costs are incurred during performance of the contract as a result of change or added items of work for which the Contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the items of work changed or added.

2. PAYMENT

Payment will be made as the work proceeds, after presentation of invoices by the contractor showing his own mobilizations costs and evidence of the charges of suppliers, subcontractors, and others for mobilization work performed by them. If the total of such payments is less than the contract lump sum for mobilization, the unpaid balance will be included in the final contract payment. Total payment will be the lump sum contract price for mobilization, regardless of actual cost to the Contractor.

Payment will not be made under this item for the purchase costs of materials having a residual value, the purchase costs of materials to be incorporated into the project, or the purchase costs of operating supplies.

Payment of the lump sum contract price for mobilization will constitute full compensation for all labor, materials, equipment, and all other items necessary and incidental to completion of the work.

Compensation for any item of work described in the contract but not listed on the bid

schedule will be included in the payment for the item or work to which it is made subsidiary. Such items and the items to which they are made subsidiary in Section 3 of this specification.

3. **ITEMS OF WORK AND CONSTRUCTION DETAILS**

Items of work to be performed in conformance with this specification and the construction details are:

a. **Bid Item 1- Mobilization**

1. This item shall consist of the contract bonds, construction signing, and mobilization of the Contractor's forces and equipment, as defined in Section 1, required for performing the work under this contract.
2. Payment will be made in accordance with Section 2.

CONSTRUCTION SPECIFICATIONS

11. Slurry Seal Type II

1. DESCRIPTION

The slurry seal shall consist of a mixture of an approved emulsified asphalt, mineral aggregate, water and specified additives, proportioned, mixed and uniformly spread over a properly prepared surface as shown on the drawings or as directed by the Engineer. The completed slurry seal shall leave a homogeneous mat, adhere firmly to the prepared surface, and have a friction resistant surface texture throughout its service life.

2. ASPHALT EMULSION

The asphalt emulsion shall be **CQS-1H or CCS-1H**. Each shipment of emulsified asphalt shall be accompanied by a certificate of analysis / compliance from the manufacturer. The asphalt emulsion shall meet all applicable requirements of Section 10. "Slurry Seal Specifications".

2.a. POLYMER MODIFIED EMULSION (Optional)

The emulsified asphalt shall be **CQS-1H or CCS-1H**. The polymer modifier shall be either a solid synthetic rubber or latex material. The polymer modifier shall be combined with the base asphalt or asphalt emulsion at a minimum rate of 3% solids by weight of asphalt prior to loading at the manufacturing plant. The polymer modified emulsion shall be compatible with the mix design developed for the conventional slurry seal. Each shipment of emulsified asphalt shall be accompanied by a certificate of analysis / compliance from the manufacturer. The asphalt emulsion shall meet all applicable requirements of Section 10. "Slurry Seal Specifications".

3. MINERAL AGGREGATE

The mineral aggregate shall be manufactured crushed stone that is free from dirt, organic matter, clay balls, adherent films of clay, dust, or other objectionable matter. The mineral aggregate shall meet all applicable requirements of Section 11. "Mineral Aggregate Specifications".

4. MINERAL FILLER

The mineral filler shall be hydrated lime or Portland cement (Type I/II). The mineral filler shall be considered as part of the mineral aggregate. The quantity and type of filler, if required, shall be determined by the job mix design. It shall be used for one or more of the following reasons only: to improve the gradation of the aggregate to provide improved stability and workability of the slurry, or to increase the durability of the cured slurry.

5. SET CONTROL ADDITIVE

Set control additive may be used to accelerate or retard the break and set of the slurry mixture. The quantity and type of set control additive, if required, shall be determined by the job mix design and conform to the applicable sections of ASTM D3910 and ISSA T102. Quantity of set control additive may be adjusted as required to maintain consistent stability and workability of the slurry mixture.

5.a. CARBON BLACK

NA.

6. WATER

Water for the slurry mixture shall be clear, potable, free from harmful soluble salts, and compatible with the slurry mixture.

7. WEATHER LIMITATIONS

The slurry seal shall not be applied if either the pavement or air temperature is below 50F (10C) and falling, but may be applied when both pavement and air temperature are above 45F (7C) and rising. No slurry seal shall be applied when there is danger that the finished product will freeze within 24 hours. The mixture shall be applied when weather conditions prolong opening to traffic beyond a reasonable time.

8. TRAFFIC CONTROL

The seal coat shall be applied to alternating lanes to allow sufficient time for the bituminous material to set and bond to the existing street. Traffic will not be allowed on the newly placed bituminous material until, in the opinion of the Project Manager, the bituminous material has sufficiently set and bonded or the material has been allowed to set and bond for four (4) hours to prevent damage by such traffic. Areas which are subject to an increased rate of sharp-turning vehicles may require additional time to allow for a more complete cure of the slurry seal mat to prevent damage.

9. SLURRY SEAL MIXTURE

The slurry seal shall consist of a mixture of emulsified asphalt, mineral aggregate, mineral filler (if required), set control additive (if required), and water conforming to Sections 10 & 11, "Slurry Seal Specifications" and "Mineral Aggregate Specifications". The mixture shall be proportioned, mixed and spread evenly on a prepared surface in accordance with these specifications or as directed by the Project Manager. The completed slurry seal shall leave a homogeneous mat, adhere firmly to the prepared surface, and have a friction resistant surface texture throughout its service life.

The equipment, tools, and machines needed in the performance of the work shall be provided by the Contractor and shall be maintained in a satisfactory working condition at all times.

- (a) Job Mix Design. Sources of all materials shall be selected prior to the time when the mix design is prepared and the materials are required to be used in the work. Slurry seal mixture shall not be placed until a mix design, submitted by the Contractor, has been approved by the Project Manager. The exact proportions of asphalt emulsion, aggregate, mineral filler, additives, and water to be used in the preparation of the slurry seal shall be determined by an approved testing laboratory experienced in slurry seal mix design procedures. Mix design preparation and certification shall conform to Sections 10 & 11, "Slurry Seal Specifications" and "Mineral Aggregate Specifications". The mix design shall be at the expense of the Contractor.

The approved slurry mix shall be a homogeneous mixture, sufficiently stable during the entire mixing / spreading period so that the emulsion does not break, there are no segregation of the fines from the coarse aggregate, and the liquid portion of the mix does not float to the surface. The amount and type of asphalt emulsion to be blended with aggregate shall be determined by the laboratory mix design. The set control additive shall be introduced into the slurry seal mixture by an approved method that will assure uniform distribution and proper control. The exact amount shall be determined by conditions in the field and indicated in the mix design. A minimum amount of water shall be used as necessary to obtain a workable and homogeneous mixture. The slurry seal mixture shall show no signs of uncoated aggregate or premature breaking of emulsion when applied to the pavement surface.

- (b) Sampling and Testing. Suitable sized samples of aggregate, asphalt emulsion, and mineral filler (if required) shall be submitted, when requested by the Project Manager, for approval not less than ten (10) days before the work starts. All samples of materials shall be supplied by the Contractor at his expense, and all tests necessary to determine conformance with requirements specified shall be performed without cost to the Contractor. Additional samples of materials shall be furnished as directed by the Project Manager during progress of the work. The owner will notify the Contractor immediately if any test fails to meet the specifications.

If it is established that a satisfactory slurry seal mixture meeting the requirements specified herein cannot be produced from the materials furnished, the materials shall be rejected and the Contractor shall submit new samples.

- (c) Preparation of Surface. Prior to application of the slurry seal, the existing pavement surface shall be cleaned of all silt deposits, oil spots, vegetation, and all loose or objectionable material. Traffic paint on the surface to be treated, which is not tightly bonded to the surface, shall be removed. Loose material in cracks and on the pavement surface shall be removed by sweeping and vacuuming operations. Water flushing may be required, but shall not be permitted in areas where considerable cracks are present in the pavement surface. The surface shall be cleaned using a self propelled pick-up sweeper.

The Project Manager shall give final approval that the surface has been properly prepared prior to the application of the slurry seal; this approval shall not relieve the Contractor from responsibility as outlined above.

Manholes, valve boxes, drop inlets, and other service entrances shall be protected from the slurry seal by placing Fibreen Grade 208-SD-10 reinforced, waterproof, all-purpose paper as manufactured by the Fortifiber Corporation or other suitable material approved by the Project Manager. The paper shall be held in place with spray glue and removed within 24 hours after the slurry seal has cured.

- (d) Mixing Unit. The slurry seal shall be mixed and applied with a machine designed and manufactured to lay slurry seal with a minimum aggregate capacity of eight (8) cubic yards to reduce the number of transverse joints. The slurry seal mixing machine shall be a continuous flow mixing unit, capable of delivering accurately predetermined proportions of aggregate, asphalt emulsion, and mineral filler (if required) to a revolving spiraled multi-blade mixer and of discharging the thoroughly mixed product on a continuous basis. The mixing unit shall be capable of thoroughly blending all ingredients together without violent action. The mixing machine shall be equipped with an approved fines feeder that provides an accurate metering device or method of introducing a predetermined proportion of mineral filler to the aggregate. The fines feeder shall be used only when mineral filler is part of the mix design. The mixing machine shall be equipped with a water pressure system and fog type spray bar. The machine shall be capable of mixing materials at preset proportions regardless of the speed of the machine and without changing machine settings.

Each mixing unit to be used in performance of the work shall be calibrated prior to construction. Previous calibration documentation covering the exact materials to be used may be accepted, provided it was made during the current calendar year. The documentation shall include an individual calibration of each material at various settings which can be related to the machine metering device(s).

Attached to the mixing machine shall be a mechanical squeegee distributor (spreader box) having a rubber-like material in contact with the surface to prevent unwanted egress of slurry. It shall prevent loss of slurry on varying grades and crown by adjustments to assure uniform spread. An appropriate mechanical device for lateral distribution of the slurry shall be operated within the spreader box. There shall be a steering device, a flexible strike-off, and a burlap or other approved drag. The spreader box shall be adjustable to widths from eight (8) to fifteen (15) feet to minimize the number of longitudinal joints. Broken slurry seal mixture shall not be allowed to collect in the spreader box or on the flexible strike-off.

- (e) Mix Preparation. The Contractor shall insure that all oversize aggregate and other objectionable matter are removed from the mineral aggregate utilized in the slurry seal mixture. Screening shall be required at the stockpile if there are problems created by oversize materials in the mixture.

- (f) Application. Sufficient quantities of the slurry seal mixture shall be fed into the spreader box so that uniform and complete coverage of the pavement is obtained. The slurry seal machine shall be operated at such a speed that the slurry in the spreader box shall not exceed a total mixing time of four (4) minutes and the volume shall remain essentially constant. The slurry seal shall be placed at a rate of 8 – 12 pounds per square yard using Type I gradation; 15 – 18 pounds per square yard using Type II gradation; 15 – 25 pounds per square yard using Type III gradation. The unit weight of the aggregate, the gradation of the aggregate, and the condition of the surface to which the slurry seal is applied may affect application rates.

No streaks shall be caused by oversized aggregate particles or buildup of slurry on hand squeegees or spreader box.

The Contractor shall have a foreman / supervisor on site during spreading of the slurry seal. The foreman / supervisor will have experience with slurry seal and a working knowledge of the equipment, materials, and application procedures.

- (g) Joints. The longitudinal joint between adjacent lanes shall have no visible lap, pinholes, or uncovered areas. Thick application caused by overlapping shall be smoothed immediately with hand squeegees before the slurry seal mixture breaks. When possible, longitudinal joints shall be placed on lane lines. The Contractor shall provide suitable spreading equipment to minimize the number of longitudinal joints. Overlays that occur at transverse joints shall be smoothed before the slurry seal mixture breaks, so that a uniform surface is obtained.
- (h) Production. The Contractor shall have the capability to average a minimum of 10,000 square yards of slurry seal application per working day.
- (i) Lines. Care shall be taken to insure straight lines. No runoff on these areas will be permitted. Lines at intersections shall be kept straight to provide a good appearance.
- (j) Handwork. Approved hand squeegees, with burlap drags, shall be used to spread slurry in areas not accessible to the slurry spreader box. Care shall be exercised in leaving no unsightly appearance from handwork.
- (k) Curing. Treated areas will be allowed to cure from four (4) to twenty-four (24) hours or until the treated pavement will not be damaged by traffic. The Contractor will protect the area for the full curing period with suitable barricades or markers. Areas which are damaged within 24 hours or prior to moving to a new map area shall be repaired at the Contractor's expense.
- (l) Storage of Equipment and Materials. Written authorization to use private property to store equipment and materials shall be obtained from the property owner and submitted prior to mobilization and use.

- (m) Cleanup. All material swept or blown onto the sidewalks, all trash, all discarded slurry seal material, or other refuse shall be collected on a daily basis, removed from the site and disposed of to a site approved by the Project Manager.

10. SLURRY SEAL SPECIFICATIONS

Slurry seal and its components shall conform to the requirements of Table 1 when tested in accordance with AASHTO, ASTM, and ISSA procedures.

**TABLE 1
SLURRY SEAL**

Test On Emulsion	Test Method	Requirements
Viscosity @ 77F, SFS sec.	AASHTO T59 / ASTM D244	20-100
Residue by distillation, weight %	AASHTO T59 / ASTM D244	60 Minimum
Sieve test	AASHTO T59 / ASTM D244	0.10 Maximum
Settlement, 24 hour, weight %	AASHTO T59 / ASTM D244	1 Maximum
Test On Residue		
Penetration @ 77F, 100 g, 5 sec.	AASHTO T49/ ASTM D2397	40-90
Solubility in trichloroethylene, %	ASTM D2042	97.5 Minimum
Ductility @ 77F, cm.	ASTM D113	40 Minimum
† Softening Point, F	AASHTO T53 / ASTM D36	126 Minimum
Test On Slurry Seal Mixture		
Residual Asphalt, % of dry weight of aggregate		6.5-12
System compatibility	ISSA T116	Pass
Mix time @ 77F	ASTM D3910 / ISSA T113	Controllable to 180 sec. Minimum
Consistency, flow	ASTM D3910 / ISSA T106	2-3 cm.
Set Time, minutes	ASTM D3910	30 Maximum
Wet Cohesion, 30 minutes	ISSA T139	‡ 12 kg*cm
Wet Cohesion, 60 minutes	ISSA T139	‡ 20 kg*cm
Wet Track Abrasion Loss	ASTM D3910 / ISSA T100	75 g./sq.ft. Max.
Wet Stripping	ISSA T114	90 Minimum

† Softening point tested only when polymer modified emulsion is specified.

‡ Cohesion values may be reported using “Mode of Rupture” evaluation detailed in ISSA T139.

11. MINERAL AGGREGATE SPECIFICATIONS

Sampling of the mineral aggregate and mineral filler shall conform to AASHTO T2 / ASTM D75 methods. All aggregates shall be from the same source. No field blending will be allowed.

The mineral aggregate shall meet the requirements of Table 2 when tested in accordance with AASHTO and ASTM methods.

**TABLE 2
MINERAL AGGREGATES**

Property	Test Method	Specification
Sand Equivalent	AASHTO T176 / ASTM D2419	45 Minimum
Soundness, %	AASHTO T104 / ASTM C88	15 Maximum (Na ₂ SO ₄)
Abrasion Resistance, %	AASHTO T96 / ASTM C131	35 Maximum *

* The abrasion test is to be performed on the aggregate before it is crushed.

The mineral aggregate including mineral filler shall conform to one of the following ISSA gradation specifications when tested in accordance with ASTM C117/AASHTO T11 and ASTM C136/AASHTO T27:

	Type I	Type II	Type III	
Sieve Size	Percent Passing	Percent Passing	Percent Passing	Stockpile Tolerance
3/8" (9.5 mm)	100	100	100	
#4 (4.75 mm)	100	90-100	70-90	+/- 5%
#8 (2.36 mm)	90-100	65-90	45-70	+/- 5%
#16 (1.18 mm)	65-90	45-70	28-50	+/- 5%
#30 (600 μ m)	40-65	30-50	19-34	+/- 5%
#50 (300 μ m)	25-42	18-30	12-25	+/- 4%
#100 (150 μ m)	15-30	10-21	7-18	+/- 3%
#200 (75 μ m)	10-20	5-15	5-15	+/- 2%

The percentage passing shall not vary from the high limit to the low limit on any two consecutive sieves.

12. GUIDELINES FOR APPLICATION

Type I gradation is intended for use on parking lots, airport runways and taxiways, and very low traffic volume residential streets, little to no truck traffic.

Type II gradation is intended for use on parking lots, residential streets, low traffic volume urban arterial streets, and airport runways and taxiways.

Type III gradation is intended for use on residential streets, urban arterial streets, rural roads, and highways.

13. Warranty

A warranty of Two (2) Years from date of application shall be required. Warranty is to include both product and workmanship on Type II Slurry. (Striping is excluded)

14. ITEMS OF WORK AND CONSTRUCTION DETAILS

Items of work to be performed in conformance with this specification and the construction details are:

a. Bid Item 2, Slurry Seal Type II

1. This item shall consist of materials, labor, equipment, and items required for performing the work under this contract.
2. Measurement: The quantity of emulsified asphalt slurry seal surface treatment to be measured for payment shall be the number of square yards completed and accepted by the Engineer
3. Payment for emulsified asphalt slurry seal surface treatment shall be made at the contract unit price per square yard. Such payment shall be full compensation for preparation of surface, furnishing, delivering, and applying the material for all labor, test sections, protection of facilities, cleanup, and all items necessary or incidental needed to complete the work as specified herein.

CONSTRUCTION SPECIFICATION

93. PAVEMENT MARKING PAINT

1. **SCOPE**

The work shall consist of furnishing and applying ready mixed traffic paint to asphaltic or concrete pavement.

2. **MATERIALS**

Furnish VOC Compliant Solvent Based or Acrylic Water Based Pavement marking paint meeting Federal Specification TTP-115 F for Low Volatile Organic Compounds (VOC) of 1.25 lbs/gal.

Apply to asphaltic or concrete pavement as edge lines, center lines, broken lines, guide lines, symbols and other related markings.

Remove pavement markings.

REFERENCES

1. AASHTO M247: Glass Beads Used in Traffic Paint.
2. ASTM D 562: Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using the Stormer-Type Viscometer.
3. ASTM D 711: No-Pick-Up Time of Traffic Paint.
4. ASTM D 2205: Selection of Tests for Traffic Paints.
5. ASTM D 2743: Uniformity of Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography.
6. ASTM D 3723: Pigment Content of Water-Emulsion Paints.
7. ASTM D 3960: Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
8. ASTM D 4451: Pigment Content of Paints
9. ASTM D 5381: S-Ray Fluorescence (XRF) Spectroscopy of Pigments and and

Extenders.

10. Federal Standards 595B, 37875, 33538, and 11105.

ACCEPTANCE

1. Repaint any line or symbol failing to meet bead adherence and dimensional requirements.
2. Repaint any line or symbol failing to meet the minimum application requirements for paint or beads. (Road Only)

PAINT

1. Choose an approved pavement marking paint UDOT's "Accepted Products Listing". Follow Federal Standards 595B, 37875, 33538, and 11105. Meet the following requirements for VOC Compliant Solvent Based Paint or Acrylic Water Based Paint:

CIELAB (L*a*b*) D65/10°		
White	Yellow	Red
L* 91.9 to 95.6	L* 70.0 to 72.7	L* 31.4 to 33.4
a* -1.8 to -2.1	a* 22.5 to 24.8	a* 51.6 to 52.6
b* 3.8 to 2.2	b* 89.7 to 73.9	b* 34.1 to 35.1

- a. No-track time: Not more than 5 minutes when tested according to ASTM D 711.
- b. Volatile Organic Compounds Content: Less than 1.25 lbs/gal ASTM D 3960.
- c. Free of lead, chromium, or other related heavy metals ASTM D 5381.
- d. Pigment: Percent by weight: Acrylic Water Based minimum of 62.0 ± 2.0 VOC Compliant Solvent minimum of 52.0. ASTM D 3723.
- e. Total Solids: Percent by weight: Acrylic Water Based minimum of 77.0 VOC Compliant Solvent minimum of 70.0 ASTM D 2205.
- f. Acrylic water based paint must contain a minimum of 40 percent, by weight, 100 percent acrylic cross-linkable emulsion as determined by infrared analysis and other chemical analysis available to UDOT. ASTM D 2205 and UDOT Manual of Instruction Section 996.

- g. VOC compliant solvent based paint must contain 37.5 percent, by weight, copolymer alkyd-resin ASTM D 2205.
- h. ASTM D 562, ASTM D 2743, ASTM D 4451 and ASTM D 5381: Tests used to verify paint samples meet “Accepted Products Listing.”

GLASS SPHERE (BEADS) USED IN PAVEMENT MARKING PAINT

- 1. Specific Properties:
 - a. Meet AASHTO M 247.
 - b. Meet type II, uniform gradation.

3. PREPARATION

- 1. Line Control.
 - a. Establish control points as required.
 - b. Maintain the line within 0 inches of the established control points and mark the roadway and parking stalls.
 - 1. Remove paint that is not placed within tolerance of the established control points and replace at no expense to the Owner.
- 2. Remove dirt, loose aggregate and other foreign material and follow manufacturer’s recommendations for surface preparation.

4. APPLICATION

- 1. Pavement Marking Paint: Apply at the following rates:
 - a. 4 inch Solid Line: From 270 to 350 ft/gal
 - b. 4 inch Broken Line: From 1080 to 1400 ft/gal
 - c. 8 inch Solid Line: From 135 to 175 ft/gal
- 2. Replace pavement markings that are less than 14 wet mils in thickness.
- 3. No payment for pavement markings placed in excess of 18 wet mils in thickness.
- 4. Painted Legends and Symbols 1 gallon per 100 square feet.
- 5. Glass Sphere (Beads): Apply a minimum of 8 lbs/gal of paint, the full length and width of line and pavement markings.
- 6. Begin striping operations no later than 24 hours after ordered by the Engineer.
- 7. At time of application apply lines and pavement markings only when the air and pavement temperature are:
 - a. 40 degrees F and rising for VOC Compliant Solvent Based Paint.

- b. 50 degrees F and rising for Acrylic Water Based Paint.
8. Comply with Traffic Control Drawing TC-16
5. **CONTRACTOR QUALITY CONTROL**
 1. Application Rate: Verify that the paint and beads are being applied within specified tolerances prior to striping.
6. **ITEMS OF WORK AND CONSTRUCTION DETAILS**

Items of work to be performed in conformance with this specification and the construction details are:

 - a. **Bid Item 3, Pavement Marking**
 1. This item shall consist of the striping and furnishing and installing three (3) van accessible handicap signs as shown on the drawings and as required for performing the work under this contract.
 2. Line Control
 - Establish control points for parking stalls as shown on the drawings.
 - Maintain the line within 1 inch of the established control points and mark the parking lot as needed.
 - Paint handicap symbols as shown on the drawings.
 - Glass sphere (beads) will be required.
 3. Broom or Sweep the pavement surface and remove dirt, loose stones and other foreign material.
 4. Equipment

Equipment manufactured specifically for applying paint.
Use only workmen experienced in operating the equipment.
 5. Restrictions

- The Contractor shall begin striping operations no later than 24 hours after written order by the Engineer.
- Apply traffic striping only when the air and pavement temperature are 40°F. or higher.

6. Application Rates

Paint - apply at the following rates:

	<u>Linear Feet/Gallon</u>
4" Solid Stripe	From 190 to 240
4" Dashed Stripe	From 760 to 960
8" Solid Stripe	From 95 to 125

Beads

- A minimum of 6 pounds/gallon of paint (**Not Required**)
- Apply beads the full length of the line (**Not Required**)

7. Signs

Van accessible signs will be as shown on the drawings.

7. **STRIPING**

One coat of striping is to be applied within 7 (seven) days of applications of Slurry Seal. (1ST coat)

Second coat of striping is to be applied 45 (forty five) to 60 (sixty) after application of Slurry Seal. All Slurry Seal is to be swept clean of debris before application of second coat of striping.

8. **MEASUREMENT**

Measurement shall not be made but shall be Lump Sum as noted on the Contract

Unit of Measure.

9. **PAYMENT**

The lump sum quantity will be paid for at the contract unit price. The payment will constitute full compensation for all labor, materials, equipment, transportation, tools, and all other items necessary or incidental to the completion of this item.

CONSTRUCTION SPECIFICATION

402. POT HOLE REPAIR & HMA OVERLAY **(BITUMINOUS SURFACE COURSE)**

1. SCOPE

The work shall consist of Pot Hole Repair with a surface course composed of mineral aggregate and bituminous binder, placed and compacted within the lines and grade shown on the plans.

2. MATERIALS

- a. Asphaltic Cements: Viscosity of asphalt cement prepared from petroleum shall conform to the requirements of AASHTO Designation M-226.
- b. Asphaltic Emulsions: Anionic emulsified asphalt shall conform to the requirements as AASHTO Designation M-140.
- c. Mineral Aggregate: Mineral aggregate shall consist of crushed stone, crushed gravel, conforming to the following requirements:
- d. Course aggregate retained on the No. 4 sieve shall consist of clean, hard, tough, durable, and sound fragments, with not more than 3 percent by weight of flat, elongated, soft, or disintegrated particles, and shall be free from vegetable matter or other deleterious substances.
- e. That portion of the aggregate retained as the No. 4 Sieve shall have not less than 50% of particles by weight with at least one mechanically fractured face, or clean angular face.
- f. The aggregate shall have a percentage of wear not exceeding 50% for road mix and 40% for plant mix, when tested in accordance with AASHTO Designation T-96. The Contractor shall certify that the mineral aggregate used on the job shall meet this wear prior to its placement in the surface course.
- g. Fine aggregate passing the No. 4 sieve, may be either a natural or manufactured product. The aggregate shall be clean, hard-grained and moderately sharp, and shall contain not more than 2 percent by weight of vegetable matter or other deleterious substances.

- h. That portion of the fine aggregate passing the No. 40 sieve shall be non-plastic when tested in accordance with AASHTO Designation T-90.
- I. The weight of minus 200 mesh material retained in the aggregate as determined by the difference in percent passing a No. 200 sieve by washing and dry sieving without washing shall not exceed 6 percent of the total sample weight.
- j. The combined mineral aggregate plus any specified additives, when mixed with the specified bituminous binder in accordance with ASTM Designation D-1559, shall conform to the following requirements:

Marshall Stability1200-2500 lbs.
 Flow (0.01 inch)10-18
 Voids Content1.5% to 3.0%

The requirements specified in this section shall be used to determine the suitability of the aggregate sources.

- k. The combined dry mineral aggregate shall be uniformly graded and of such size that it meets the following gradation band.

1/2"	100
3/8"	95-100
#4	75-90
#16	62-82
#50	11-28
#200	2-10

Any deviation from the above gradation bands must be approved in writing by the Engineer.

3. **CONSTRUCTION METHODS**

- a. Hot Mix Plant: The mineral aggregate and bituminous binder shall be mixed at a central mixing plant. The shortest mixing time consistent with satisfactory coating of the aggregate shall be used, as determined by the Engineer. The mineral aggregate shall be considered satisfactorily coated with bitumen when all of the particles passing the No. 4 sieve and 98 percent of the particles retained on the No. 4 sieve are coated.
- b. Spreading and Compaction: The mixture shall be spread and struck-off in such a manner that finished surface shall conform to the elevations, grades, and cross-section shown on the drawings or as staked in the field. The surface shall be rolled by 4 passes with a pneumatic or steel-wheeled exerting a minimum pressure of 40 psi., or by and approved equal method. Rolling

operations shall be conducted in such a manner that shoving or distortion will not develop beneath the roller.

- c. Finishing: The surface shall be finished to a smooth, uniform line flush with the existing surface. Determination of compliance with smoothness may be made with a straight edge or chalk-line at the option of the Engineer. Any irregularities shall be satisfactory corrected at the expense of the Contractor.
- d. Sample of Aggregate: The Contractor shall submit test results and a certification of compliance that the gradation of the aggregate meets the contract requirements.

4. **ACCEPTANCE SAMPLING AND TESTING**

- a. Acceptance sampling and testing mixture (gradation and bituminous content). Acceptance samples of the mixture will be taken, by the Engineer, after it has been placed in the finished surface and just prior to compaction.
- b. Samples will be tested by Engineer, for bitumen content and gradation. Any material not complying to these specifications will be removed and replaced at the Contractor's expense.

5. **ITEMS OF WORK AND CONSTRUCTION DETAILS**

Items of work to be performed in conformance with this specification and construction details are:

- a. Bid Item 4, Pot Hole Repair
 - 1. This item shall consist of furnishing the bituminous material, 1-inch minus untreated base course, excavating pot holes, saw cutting disposal of excavated material, and compaction of the untreated base course and bituminous mixture to the lines and grades shown on the drawings or as staked in the field.
 - 2. The bituminous aggregate shall meet the gradation requirements as listed in 402.2 of these specifications.
 - 3. The HMA shall be grade AC-20, viscosity graded, 1/2-inch mix.
 - 4. Bituminous material shall be placed at a temperature not less than 250 degrees Fahrenheit, measured in the truck just prior to dumping.
 - 5. Untreated base material will comply with the following:

a. 1 inch Gradation

<u>Sieve Size</u>	<u>Ideal Gradation % Passing</u>	<u>% Passing Gradation Band</u>
1"	100	100
½"	85	79-91
#4	55	49-61
#16	31	27-35
#200	9	7-11

b. The moisture content of the material at the time of compaction shall be between + 2% optimum and - 2% of optimum.

c. Untreated base and the earth foundation shall be moistened and compacted to acquire at least ninety-five percent (95%) of the maximum density as determined in accordance with AASHTO Designation T-99, method D.

6. Earth material excavated from the potholes shall be disposed of in an approved area, and all bituminous mixture shall be removed from the roadway and disposed of by the Contractor at an approved landfill at the Contractor's expense.
7. Contractor will be required to excavate the pot hole area 9-inches below the surface and replace with bituminous surface course material and untreated base as shown on the drawings or directed by the Engineer.
8. No excavated pot holes will be left overnight without appropriate barricades.
9. All pavement removed for pothole repair will be saw cut prior to removal.
10. All pot holes will be slurry sealed as shown on the drawings.
11. Measurement and payment shall be by the square foot.